

SITE INVESTIGATION WORKPLAN

Prepared for the

Former IBM Facility
Neptune Road
Poughkeepsie, New York

NYSDEC Site Code: 314076

October 22, 2007

ESI File: NP07096.20

ECOSYSTEMS STRATEGIES, INC.
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Prepared By:

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The undersigned has reviewed this Site Investigation Work Plan and certifies to Neptune Capital Investors, LLC that the information provided in this document is accurate as of the date of issuance by this office.

Any and all questions or comments, including requests for additional information, should be submitted to the undersigned.



Paul H. Ciminello
President

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1.0 INTRODUCTION

1.1 Purpose

The "Former IBM Site" (hereafter referred to as the "Site") has been listed by the New York State Department of Environmental Conservation (NYSDEC) as a Class 4 Inactive Hazardous Waste Disposal (IHWD) Site (ID: 314076), based on the presence of chlorinated volatile organic compounds (cVOCs) in on-site groundwater and the continuing operation of a groundwater remediation system. This Site Investigation Workplan (SI Workplan) provides guidance on the manner in which specific environmental investigative services will be conducted on the Site, in order to document potential sources of known, ongoing groundwater contamination.

1.2 Site Location and Description

The Site is a 5.46-acre portion of the former 26-acre IBM facility located on Neptune Road, Town of Poughkeepsie, Dutchess County, New York. The surrounding area generally consists of commercial and residential uses. The Site is comprised of two former IBM buildings identified as "B952" and "B982". Appendix A contains a Site Location Map, Tax map, and an aerial photograph of the Site and surrounding area (Figures 1, 2, and 3, respectively).

The Site is relatively level, but is situated above the property located to the southeast. The general gradient is to the east-southeast towards US Route 9 (South Road). Review of the applicable USGS Topographic Map indicates that the Site is located at the edge of a local topographic high, at an approximate elevation of 145 feet above mean sea level. Casper Creek is located approximately 1,800 feet to the southeast of the site and the Hudson River is located approximately one mile to the west. Surface drainage is toward the southeast towards Casper Creek.

The following Site-specific data is derived from the Reclassification Petition, IBM B952/982, prepared by Groundwater Sciences Corporation (GSC) in March 1993. According to GSC, the site is underlain by dolostone of the Wappinger Formation, which is overlain by a variable thickness of unconsolidated sediments including till, outwash, and lacustrine deposits. The unconsolidated sediments were found to be more than 55 feet thick southeast of building B982 but less than 10 feet thick along Highway 9. Groundwater flow was found to occur primarily within the dolostone bedrock. Water level measurements during the installation of monitoring wells at the site indicate that groundwater flows downward in the shallow bedrock and then horizontally within the deeper bedrock.

1.3 Known and Suspect Environmental Conditions

The vacant on-site buildings were formerly used for manufacturing and a variety of hazardous chemicals, including chlorinated solvents, are known to have been discharged into a central holding tank located between the buildings. The tank was found to have been leaking in 1981, and contamination of soil and groundwater with cVOCs (1,1-dichloroethane, 1,2-dichloroethene, 1,1,1-trichloroethane, and trichloroethene) was documented. Multiple monitoring wells were installed in order to determine the extent of the contamination at the site. It was determined that the "Alcove", the area between the two buildings, was a hot spot of contamination and should be excavated. Excavation of the tank and surrounding contaminated soils was conducted circa 1984. Only half of the excavated soil from the "Alcove" (the so-called source location between the buildings) was removed from the Site; the other half (approximately 5,000 cubic yards) was mixed with "clean" fill and placed back into the excavation. The soil returned to ground was contaminated with chlorinated compounds (analyte concentrations unknown).

An active groundwater treatment system was installed on the Site in the early 1990s with the intent of removing dissolved solvents from a centrally located recovery well. Contaminant levels have decreased, in general, over time but levels for specific compounds continue to exceed groundwater protection standards. Groundwater testing continues to document the presence of dichlorobenzene, a cVOC not known to have been significantly identified in previous soil investigations. The cause of this ongoing contamination may be previously identified soils that have not been fully remediated, or a previously unknown source area, such as soils beneath the buildings or dense non-aqueous phase liquid (DNAPL) in bedrock.

The Site is currently on the NYSDEC Registry of IHWD Sites as a Class 4 site (reclassification from 2a to 4 was completed in 1993). Site declassification will require greater reduction in contaminants in the groundwater, which in turn will likely require identifying and eliminating the source of groundwater contamination. This SI Workplan proposes the use of soil vapor testing for the preliminary characterization and delineation of possible existing source areas for cVOC contamination.

2.0 PROPOSED SITE INVESTIGATION SERVICES

This section of the Work Plan details proposed environmental investigative activities. A Proposed Fieldwork Map, depicting relevant Site features and proposed fieldwork locations, is provided as Figure 4, Appendix A, and a site specific Health and Safety Plan and a Community Air Monitoring Plan are provided as Appendix B and C, respectively.

ESI (hereafter referred to as the On-Site Coordinator, "OSC") has been retained by Neptune Capital Investors, LLC, the Site owner (the "Owner"), to oversee the provision of the environmental investigative services specified in this SI Workplan. The Owner will contract with the OSC and other environmental contractors (as necessary) to provide the services detailed below.

2.1 Overview of Proposed Services

The proposed services include the collection of soil vapor samples from both exterior and interior (subslab) locations, and submission of these samples for laboratory analysis of VOCs (Section 2.3.2). Proposed sampling locations are presented on Figure 4, Appendix A).

2.2 Site Preparation Services

2.2.1 Qualifications of On-site Remedial Personnel

The Owner will ensure that qualified contractors are used. All on-site staff will be appropriately trained in accordance with Occupational Safety and Health Administration (OSHA) practices (29 CFR, Part 1910). Prior to the initiation of fieldwork, a Site Health and Safety Officer will be designated, and a Health and Safety Plan will be provided (see Section 2.2.2, below).

2.2.2 Health and Safety Plan

A site-specific Health and Safety Plan (HASP), incorporating a Community Health and Safety Plan, will be reviewed with site personnel and subcontractors prior to the initiation of specific fieldwork where contaminated media are likely to be encountered. All proposed work will be performed in "Level D" personal protective equipment. Field personnel (including subcontractors) will be prepared to continue services wearing more protective levels of equipment should field conditions warrant. A copy of the HASP is included as Appendix B. Unless determined otherwise, the OSC will provide staff to serve as the project's Health and Safety Officer.

2.2.3 Quality Assurance / Quality Control

This section of the SI Workplan provides an overview of protocols for ensuring that suitable and verifiable data results from sampling and analysis (specific sampling methodologies and requirements for laboratory submission are detailed in Section 2.3, below. A more detailed Quality Assurance Project Plan (QAPP) is provided as Appendix D.

Equipment

Prior to the initiation of fieldwork, all field equipment to be used during the work will be properly decontaminated in accordance with NYSDEC guidelines, and all field instruments will be properly calibrated in accordance with procedures set forth by the equipment manufacturer(s). Unless otherwise specified, a MiniRAE 2000 (Model PGM 7600) photo-ionization detector (PID) will be used for site-screening of organic vapors. The PID is calibrated to read parts per million calibration gas equivalents (ppm-cge) of isobutylene. Instrument calibration will be performed no more than 24 hours prior to the commencement of fieldwork, and a written record of calibration results will be provided in the project files.

Laboratory

All samples will be collected in accordance with applicable NYSDEC guidelines and will be submitted to a New York State Department of Health (NYSDOH) ELAP-certified laboratory using appropriate chain of custody procedures. Dedicated, laboratory-supplied sample containers will be used for sample collection. Field personnel will complete all chain of custody forms.

Laboratory reports will include detailed Quality Assurance/Quality Control (QA/QC) analyses, which will be provided in the final report. Category B deliverables, as defined in the analytical services protocol (ASP), will be submitted for all samples. A Data Usability Summary Report (DUSR) will be prepared by a third, independent party, which maintains NYSDOH ELAP CLP Certification

2.2.4 Fieldwork Monitoring

An assessment of subsurface soil characteristics, including soil type, the presence of foreign materials, and field and/or instrument indications of contamination (e.g., staining, odors, and PID readings) will be made by the OSC. The OSC will be responsible for ensuring that any unforeseen environmental conditions are managed in accordance with applicable federal and state regulations.

2.2.5 Notifications

The NYSDEC will be notified (for informational purposes) prior to the start of fieldwork and will be provided with a copy of this SI Workplan.

Prior to the implementation of any of the investigative tasks outlined in Section 2.3, below, a request for a complete utility markout of the Site will be submitted as required by New York State Department of Labor regulations, and confirmation of underground utility locations will be secured. A field check of the utility markout will be performed prior to the initiation of work. Site utilities will be protected (as necessary) by the contractor or Owner.

2.3 Proposed Site Investigation Services

This section of the SI Workplan provides a detailed description of the procedural and investigative tasks that will be conducted at the Site.

2.3.1 Conduct Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP), see Appendix D) will be initiated during all ground intrusive activities, and during any other fieldwork that is reasonably likely to generate significant vapors. The implementation of this Plan will document the presence or absence of specific compounds in the air surrounding the work zone, which may migrate off-site due to fieldwork activities. This plan provides guidance on the need for implementing more stringent emission controls based on air quality data. Air monitoring will be conducted for VOCs.

Monitoring for VOCs will occur within 50 feet of the work zone using a PID. Recorded PID readings in excess of 5 ppm will be considered evidence of unacceptable air emissions and proper procedures to reduce emissions will be immediately instituted. Ameliorative procedures may include reducing the surface area of contaminated soil being disturbed at one time, watering exposed soils to reduce fugitive odors, or stopping excavation activities.

2.3.2 Soil Vapor Sampling

A soil vapor survey will be completed for the Site. A total of eleven (11) samples will be collected and analyzed: four (4) from beneath the slab of each of the on-site buildings and three (3) from the exterior courtyard area between the buildings.

A tracer gas (e.g., helium) will be used at all soil-vapor sampling locations to verify that adequate sampling techniques are being implemented (i.e. to verify the absence of significant infiltration of outside air), in accordance with methodology specified in the NYSDOH's Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006).

Soil vapor under the building will be collected from immediately beneath the slab. The slab will be breached using a drill and concrete drill bit. Soil vapor from exterior locations will be collected from soil borings extended to a depth of approximately 4 feet bsg (borings will be extended using properly decontaminated, mechanized or hand-held direct-push equipment). A hollow, 1.5" steel rod with an expendable tip will be placed in each boring, the expendable tip will be removed from the rod, and an air-stone attached to ¼" Teflon tubing will be inserted into the rod and lowered to the invert of the boring. The rod will be removed and clean silica sand will be used to fix the air-stone in place. Slab breaches and boreholes will be sealed using a non-VOC containing caulk, in order to prevent the infiltration of surface air. Each soil-vapor collection point will be sufficiently purged using a GilAir 3 air-sampling pump. Soil-vapor samples will be collected following purging into laboratory supplied Summa canisters, fitted with one-hour controllers, and will be submitted for analysis of VOCs (USEPA Method TO-15, detection limit 1 mcg/m³). Purging and sampling flow rates will not exceed 0.2 liters/minute.

The exact locations of all soil borings will be determined by field personnel. All sampling locations will be measured to the nearest 0.5-foot relative to a permanent fixed on-site marker, and will be recorded in logbooks for inclusion in all final maps.

2.3.3 Preparation of Final Reports

A Summary Report will be submitted to the owner following the completion of Site investigative services. The report will summarize and document all investigative activities conducted on the Site (including all relevant maps, drawings, summary data tables, and complete laboratory reports), and provide an analysis of existing Site conditions and potential future response actions.

2.4 Proposed Schedule

The following schedule is anticipated for this project:

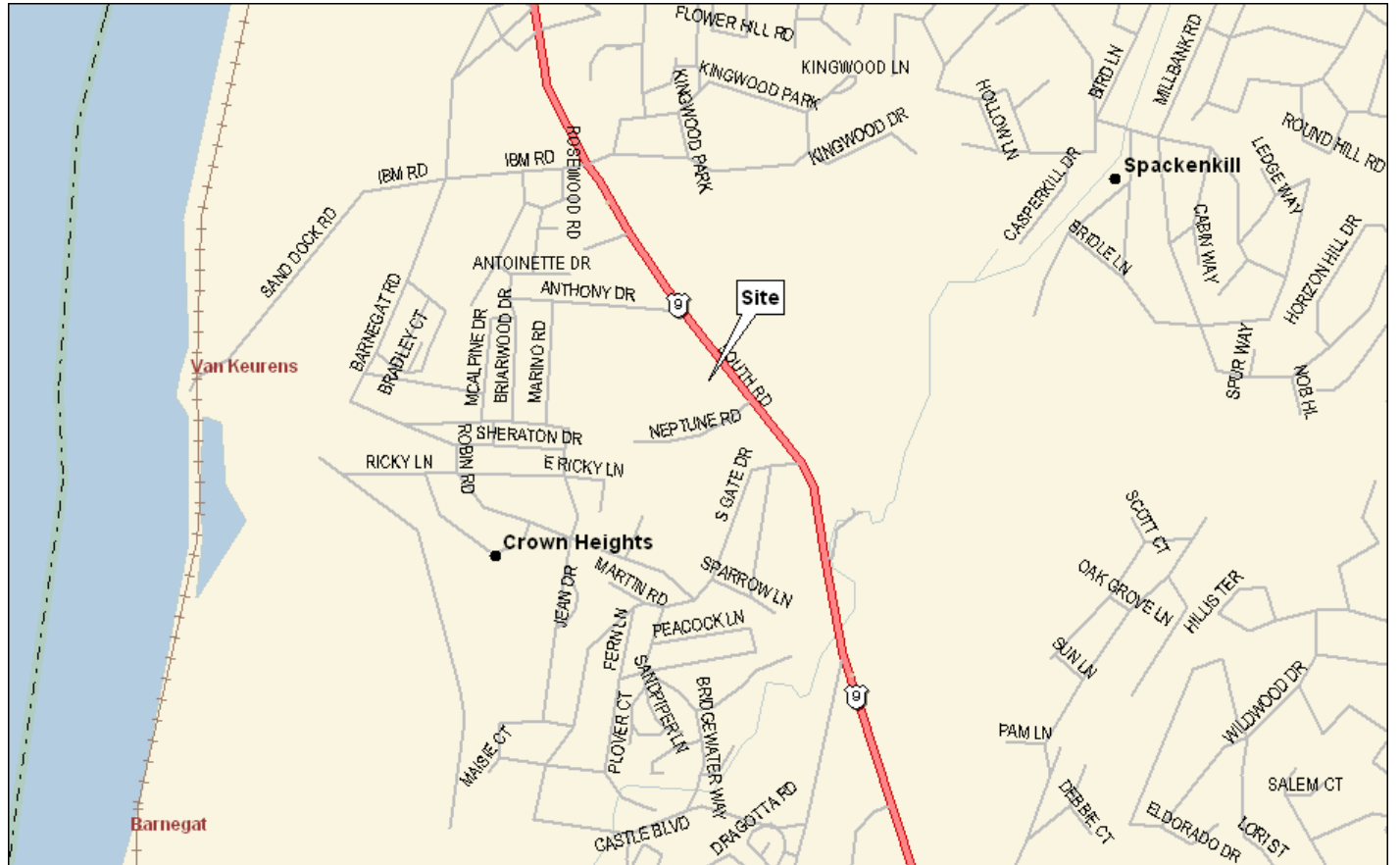
Collection of Soil Vapor Samples: week of October 29, 2007

Receipt of Laboratory data: week of November 12, 2007

Completion of Summary Report: week of November 19, 2007

APPENDIX A

Figures



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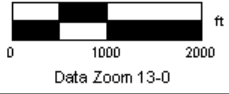


Figure 1 - Site Location Map
 Former IBM Facility
 Neptune Road
 Town of Poughkeepsie
 Dutchess County, New York



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 Date: October 2007
 Appendix A



All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 2 - Tax Map
 Former IBM Facility
 Neptune Road
 Town of Poughkeepsie
 Dutchess County, New York

Legend:

—— Site border

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October 2007

Appendix A



All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

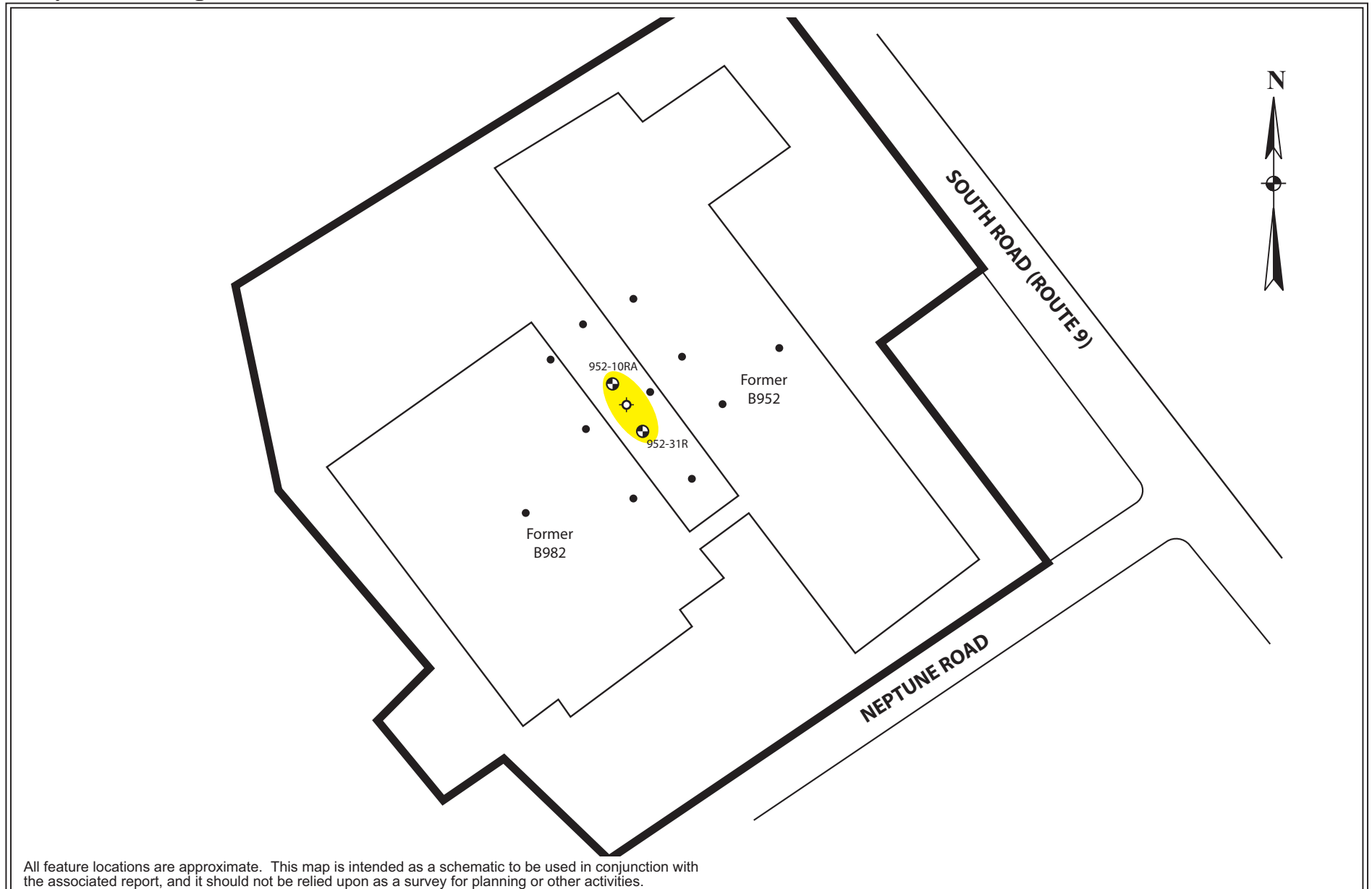
Figure 3 - Aerial Photograph

Former IBM Facility
 Neptune Road
 Town of Poughkeepsie
 Dutchess County, New York

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Appendix A



All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 4 - Proposed Fieldwork Map
 Former IBM Facility
 Neptune Road, Town of Poughkeepsie,
 Dutchess County, New York

- Legend:
- Site border
 - existing monitoring well location
 - existing extraction well location
 - proposed soil gas sample location
 - area of known groundwater contamination

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Scale: 1" = 125' (approximately)
Appendix A

APPENDIX B
Health and Safety Plan

HEALTH AND SAFETY PLAN

FOR

SITE INVESTIGATION

(INCORPORATING COMMUNITY HEALTH AND SAFETY PLAN)

**Former IBM Facility
Neptune Road
Poughkeepsie, New York**

NYSDEC Site Code: 314076

October 2007

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Appendix B of the Site Investigation Workplan

Prepared By

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Site Location Map

Proposed Fieldwork Map

1.0 INTRODUCTION

1.1 Purpose

This Health and Safety Plan (HASP) has been developed to provide the requirements and general procedures to be followed by Ecosystems Strategies, Inc. (ESI) and designated subcontractors while performing site investigation activities at the “Former IBM” Site located on Neptune Road, Town of Poughkeepsie, Dutchess County, New York.

This HASP incorporates policies, guidelines, and procedures that have the objective of protecting the public health of the community during the performance of fieldwork activities, and therefore serves as a Community Health and Safety Plan (CHASP). The objectives of the CHASP are met by establishing guidelines to minimize community exposure to hazards during fieldwork, and by planning for and responding to emergencies affecting the public.

This HASP describes the responsibilities, training requirements, protective equipment, and standard operating procedures to be utilized by all personnel while on the Site. This HASP incorporates by reference the applicable Occupational Safety and Health Administration (OSHA) requirements in 29 CFR 1910 and 29 CFR 1926.

The requirements and guidelines in this HASP are based on a review of available information and evaluation of potential on-site hazards. This HASP will be discussed with Site personnel and will be available on-site for review while work is underway. On-site personnel will report to the Site Safety and Health Officer (SSHO) in matters of health and safety. The on-site project supervisor(s) are responsible for enforcement and implementation of this HASP.

This HASP is specifically intended for the conduct of activities within the defined scope of work in specified areas of the Site. Changes in site conditions and future actions that may be conducted at this site may necessitate the modification of the requirements of the HASP. Although this HASP can be made available to interested persons for informational purposes, ESI has no responsibility over the interpretations or activities of any other persons or entities other than employees of ESI and designated subcontractors to ESI.

1.2 Site Location and Description

The Site as defined in this HASP is the former IBM facility (buildings B952 and B982) located on Neptune Road, Town of Poughkeepsie, Dutchess County, New York. A Site Location Map and a Proposed Fieldwork Map (illustrating the configuration of the Site as well as the areas of proposed investigative activities) are included in the Attachments of this HASP.

1.3 Work Activities

Environmental investigation activities are detailed in the Site Investigation Workplan (SI Workplan) dated October 17, 2007. The specific tasks detailed in the SI Workplan are wholly incorporated by reference into this HASP. The SI Workplan was prepared in order to investigate environmental conditions associated with the listing of the Site as a New York State Department of Environmental Conservation (NYSDEC) Class 4 Inactive Hazardous Waste Disposal Site (ID: 314076). Existing and suspected contamination includes impacts to soils, soil vapor, and groundwater by chlorinated hydrocarbons.

The following field tasks will be performed:

- Drilling holes through concrete building slabs, extension shallow soil borings, using hand-held equipment; and,
- Investigation of soil vapor at slab openings/boring locations.

2.0 HEALTH AND SAFETY HAZARDS

2.1 Hazard Overview for On-site Personnel

The potential exists for the presence of elevated levels of chlorinated hydrocarbons in on-site soil and soil vapor, and the possibility exists for on-site personnel to have contact with these contaminated media during site investigative work. Contact with contaminated substances may present a skin contact, inhalation, and/or ingestion hazard. These potential hazards are addressed in Sections 3.0 through 11.0, below.

2.2 Potential Hazards to the Public from Fieldwork Activities

The potential exists for the public to be exposed to contaminated soil vapor, which may present an inhalation hazard. Additional potential hazards to the public that are associated with fieldwork activities include mechanical/physical hazards, traffic hazards from fieldwork vehicles, and noise impacts associated with operation of mechanical equipment.

Impacts to public health and safety are expected to be limited to hazards that could directly affect on-site visitors and/or trespassers. These effects will be mitigated through site access and control measures (see Section 6.0, below). Specific actions taken to protect the public health (presented in Sections 3.0 through 11, below, and in the Community Air Monitoring Plan) are anticipated to minimize any potential off-site impacts from contaminant migration, noise, and traffic hazards.

3.0 PERSONAL PROTECTIVE EQUIPMENT

The levels of protection identified for the services specified in the SI Workplan represent a best estimate of exposure potential and protective equipment needed for that exposure. Determination of levels was based on data provided by previous studies of the Site and information reviewed on current and past Site usage. The SSHO may recommend revisions to these levels based on an assessment of actual exposures.

The level of protective clothing and equipment selected for this project is Level D. Workers will wear Level D protective clothing including, but not limited to, a hard hat, steel-toed boots, latex gloves (when handling soils and/or groundwater), and safety goggles (when decontaminating equipment). Personal protective equipment (PPE) will be worn at all times, as designated by this HASP. The requirement for the use of PPE by official on-site visitors shall be determined by the SSHO. All on-site visitors shall, at a minimum, be required to wear an approved hardhat and be provided with appropriate hearing protection as necessary.

The need for an upgrade in PPE will be determined based upon encountered Site conditions, including measurements taken in the breathing zone of the work area using a photo-ionization detector (PID). An upgrade to a higher level of protection will begin when PID readings above specified limits are measured, or as otherwise required by the SSHO (see Section 5.0, below).

If any equipment fails and/or any employee experiences a failure or other alteration of their protective equipment that may affect its protective ability, that person will immediately leave the work area. The Project Manager and the SSHO will be notified and, after reviewing the situation, determine the effect of the failure on the continuation of on-going operations. If the failure affects the safety of personnel, the work site, or the surrounding environment, personnel will be evacuated until appropriate corrective actions have been taken.

4.0 CONTAMINANT CONTROL

Precautions will be taken during dry weather (e.g., wetting or covering exposed soils) to avoid generating and breathing dust-generated from soils. A PID will be used to monitor potential contaminant levels. Response to the monitoring will be in accordance with the action levels provided in Section 5.0.

5.0 MONITORING AND ACTION LEVELS

Concentrations of chlorinated hydrocarbons in the air are expected to be below the OSHA Permissible Exposure Limits (PELs). A Community Air Monitoring Plan will be implemented for all fieldwork (a copy of the Community Air Monitoring Plan is provided as an appendix to the [SI Workplan](#)). Air monitoring will be conducted for VOCs. Monitoring will be conducted at all times that fieldwork activities which are likely to generate emissions are occurring. PID readings consistently in excess of 5 ppm will be used as an indication of the need to initiate personnel monitoring, increase worker protective measures, and/or modify or cease on-site operations in order to mitigate off-site community exposure.

PID readings that consistently exceed background in the breathing zone (during any of the proposed tasks) will necessitate moving away from the source or implementing a higher PPE level.

6.0 SITE ACCESS AND CONTROL

Site control procedures will be established to reduce the possibility of worker/visitor contact with compounds present in the soil, to protect the public in the area surrounding the Site and to limit access to the Site to only those persons required to be in the work zone. Notices will be placed near the Site warning the public not to enter fieldwork areas and directing visitors to report to the Project Manager or SSHO. Measures will be taken to limit the entry of unauthorized personnel into the specific areas of field activity and to safely direct and control all vehicular traffic in and near the Site (e.g., placement of traffic cones and warning tape).

7.0 NOISE CONTROL

All fieldwork activities will be conducted in a manner designed to reduce unnecessary noise generation, and to minimize the potential for both on-site and off-site harmful noise levels. The Project Manager and SSHO will establish noise reduction procedures (as appropriate to the Site and the work) to meet these requirements.

8.0 PERSONNEL TRAINING

Work zones that will accomplish the general objective stated above will be established by the Project Manager and the SSHO. Site access will be monitored by the SSHO, who will maintain a log-in sheet for personnel that will include, at the minimum, personnel on the Site, their arrival and departure times, and their destination on the Site. All workers will be properly trained in accordance with OSHA requirements (29 CFR 1910). Personnel exiting the work zone(s) will be decontaminated prior to exiting the Site.

Site-specific training will be provided to each employee. Personnel will be briefed by the SSHO as to the potential hazards to be encountered. Topics will include:

- Availability of this HASP;
- General site hazards and specific hazards in the work areas, including those attributable to known or suspect on-site contaminants;
- Selection, use, testing, and care of the body, eye, hand, and foot protection being worn, with the limitations of each;
- Decontamination procedures for personnel, their personal protective equipment, and other equipment used on the Site;
- Emergency response procedures and requirements;
- Emergency alarm systems and other forms of notification, and evacuation routes to be followed; and,
- Methods to obtain emergency assistance and medical attention.

9.0 DECONTAMINATION

The SSHO will establish a decontamination system and decontamination procedures (appropriate to the Site and the work) that will prevent potentially hazardous materials from leaving the Site. Trucks will be brushed to remove materials adhering to their surfaces. Sampling equipment will be segregated and, after decontamination, stored separately from splash protection equipment. Decontaminated or clean sampling equipment not in use will be covered with plastic and stored in a designated storage area in the work zone.

10.0 EMERGENCY RESPONSE

10.1 Notification of Site Emergencies

In the event of an emergency, the SSHO will be immediately notified of the nature and extent of the emergency (the names and contact information for key site safety and management personnel, as well as other site safety contact telephone numbers, shall be posted at the Site).

Table 1 in this HASP contains Emergency Response Telephone Numbers, and immediately following is a map detailing the directions to the nearest hospital emergency room. This information will be maintained at the work Site by the SSHO. The location of the nearest telephone will be determined prior to the initiation of on-site activities. In addition to any permanent phone lines, a cellular phone will be available.

10.2 Responsibilities

Prior to the initiation of on-site work activities, the SSHO will:

- Notify individuals, authorities, and/or health care facilities of the potentially hazardous activities and potential wastes that may develop as a result of the investigation.
- Confirm that first aid supplies and a fire extinguisher are available on-site.
- Have a working knowledge of safety equipment available.
- Confirm that a map detailing the most direct route to the hospital is prominently posted with the emergency telephone numbers.

The SSHO will be responsible for directing notification, response, and follow-up actions and for contacting outside response personnel (ambulance, fire department, or others). In the case of an evacuation, the SSHO will account for personnel. A log of individuals entering and leaving the Site will be kept so that everyone can be accounted for in an emergency. Upon notification of an exposure incident, the SSHO will contact the appropriate emergency response personnel for recommended medical diagnosis and, if necessary, treatment. The SSHO will determine whether and at what levels exposure actually occurred, the cause of such exposure, and the means to prevent similar incidents from occurring.

10.3 Accidents and Injuries

In the event of an accident or injury, measures will be taken to assist those who have been injured or exposed and to protect others from hazards. If an individual is transported to a hospital or doctor, a copy of the HASP will accompany the individual. The SSHO will be notified and will respond according to the severity of the incident. The SSHO will perform an investigation of the incident and prepare a signed and dated report documenting the investigation. An exposure-incident report will also be completed by the SSHO and the exposed individual. The form will be filed with the employee's medical and safety records to serve as documentation of the incident and the actions taken.

10.4 Communication

No special hand signals will be utilized within the work zone. Field personnel will utilize standard hand signals during the operation of heavy equipment.

10.5 Safe Refuge

Vehicles and on-site structures will serve as the immediate place of refuge in the event of an emergency. If evacuation from the area is necessary, project vehicles will be used to transport on-site personnel to safety.

10.6 Site Security and Control

Site security and control during emergencies, accidents, and incidents will be monitored by the SSHO. The SSHO is responsible for limiting access to the Site to authorized personnel and for oversight of reaction activities.

10.7 Emergency Evacuation

In case of an emergency, personnel will evacuate to the safe refuge identified by the SSHO, both for their personal safety and to prevent the hampering of response/rescue efforts.

10.8 Resuming Work

A determination that it is safe to return to work will be made by the SSHO and/or any personnel assisting in the emergency, e.g., fire department, police department, utility company, etc. No personnel will be allowed to return to the work areas until a full determination has been made by the above-identified personnel that all field activities can continue unobstructed. Such a determination will depend upon the nature of the emergency (e.g., downed power lines -- removal of all lines from the property; fire -- extinguished fire; injury -- safe transport of the injured party to a medical facility with either assurance of acceptable medical care present or completion of medical care; etc.). Before on-site work is resumed following an emergency, necessary emergency equipment will be recharged, refilled, or replaced. Government agencies will be notified as appropriate. An Incident Report Form will be filed.

10.9 Fire Fighting Procedures

A fire extinguisher will be available in the work zone during on-site activities. This extinguisher is intended for small fires. When a fire cannot be controlled with the extinguisher, the area will be evacuated immediately. The SSHO will be responsible for directing notification, response, and follow-up actions and for contacting ambulance and fire department personnel.

10.10 Emergency Decontamination Procedure

The extent of emergency decontamination depends on the severity of the injury or illness and the nature of the contamination. Whenever possible, minimum decontamination will consist of washing, rinsing, and/or removal of contaminated outer clothing and equipment. If time does not permit decontamination, the person will be given first aid treatment and then wrapped in plastic or a blanket prior to transport.

10.11 Emergency Equipment

The following on-site equipment for safety and emergency response will be maintained in the on-site vehicle of the SSHO:

- Fire extinguisher;
- First-aid kit; and,
- Extra copy of this Health and Safety Plan.

11.0 SPECIAL PRECAUTIONS AND PROCEDURES

The activities associated with this investigation may involve potential risks of exposure to both chemical and physical hazards. The potential for chemical exposure to hazardous or regulated substances will be significantly reduced through the use of monitoring, personal protective clothing, engineering controls, and implementation of safe work practices.

11.1 Heat/Cold Stress

Training in prevention of heat/cold stress will be provided as part of the site-specific training. The timing of this project is such that heat/cold stress may pose a threat to the health and safety of personnel. Work/rest regimens will be employed, as necessary, so that personnel do not suffer adverse effects from heat/cold stress. Special clothing and appropriate diet and fluid intake regimens will be recommended to personnel to further reduce this temperature-related hazard. Rest periods will be recommended in the event of high/low temperatures and/or humidity to counter the negative effects of heat/cold stress.

11.2 Heavy Equipment

Working in the vicinity of heavy equipment is the primary safety hazard at the Site. Physical hazards in working near heavy construction equipment include the following: overhead hazards, slips/trip/falls, hand and foot injuries, moving part hazards, improper lifting/back injuries, and noise. All workers will be properly trained in accordance with OSHA requirements (29 CFR 1910). No workers will be permitted within any excavated areas without proper personal protective equipment (PPE), including, as warranted, respirators, Tyvek suits, and/or gloves. Air monitoring for VOCs will be conducted in accordance with the HASP and the Community Air Monitoring Plan (SI Workplan appendices B and C).

11.3 Additional Safety Practices

The following are important safety precautions which will be enforced during this investigation:

- Medicine and alcohol can aggravate the effect of exposure to certain compounds. Controlled substances and alcoholic beverages will not be consumed during investigation activities. Consumption of prescribed drugs will only be at the discretion of a physician familiar with the person's work.
- Eating, drinking, chewing gum, or tobacco, smoking, or other practices that increase the probability of hand-to-mouth transfer and ingestion of material is prohibited except in areas designated by the SSHO.
- Contact with potentially contaminated surfaces will be avoided whenever possible. Workers will not unnecessarily walk through puddles, mud, or other discolored surfaces; kneel on the ground; or lean, sit, or place equipment on drums, containers, vehicles, or the ground.
- Personnel and equipment in the work areas will be minimized, consistent with effective site operations.
- Unsafe equipment left unattended will be identified by a "DANGER, DO NOT OPERATE" tag.
- Work areas for various operational activities will be established.

11.4 Daily Log Contents

The SSHO will establish a system appropriate to the Site, the work, and the work zones that will record, at a minimum, the following information:

- Personnel on the Site, their arrival and departure times, and their destination on the Site.
- Incidents and unusual activities that occur on the Site such as, but not limited to, accidents, spills, breaches of security, injuries, equipment failures, and weather-related problems.
- Changes to the HASP.
- Daily information generated such as: changes to work and health and safety plans; work accomplished and the current Site status; and monitoring results.

12.0 TABLE AND FIGURES

Table 1: Emergency Response Telephone Numbers

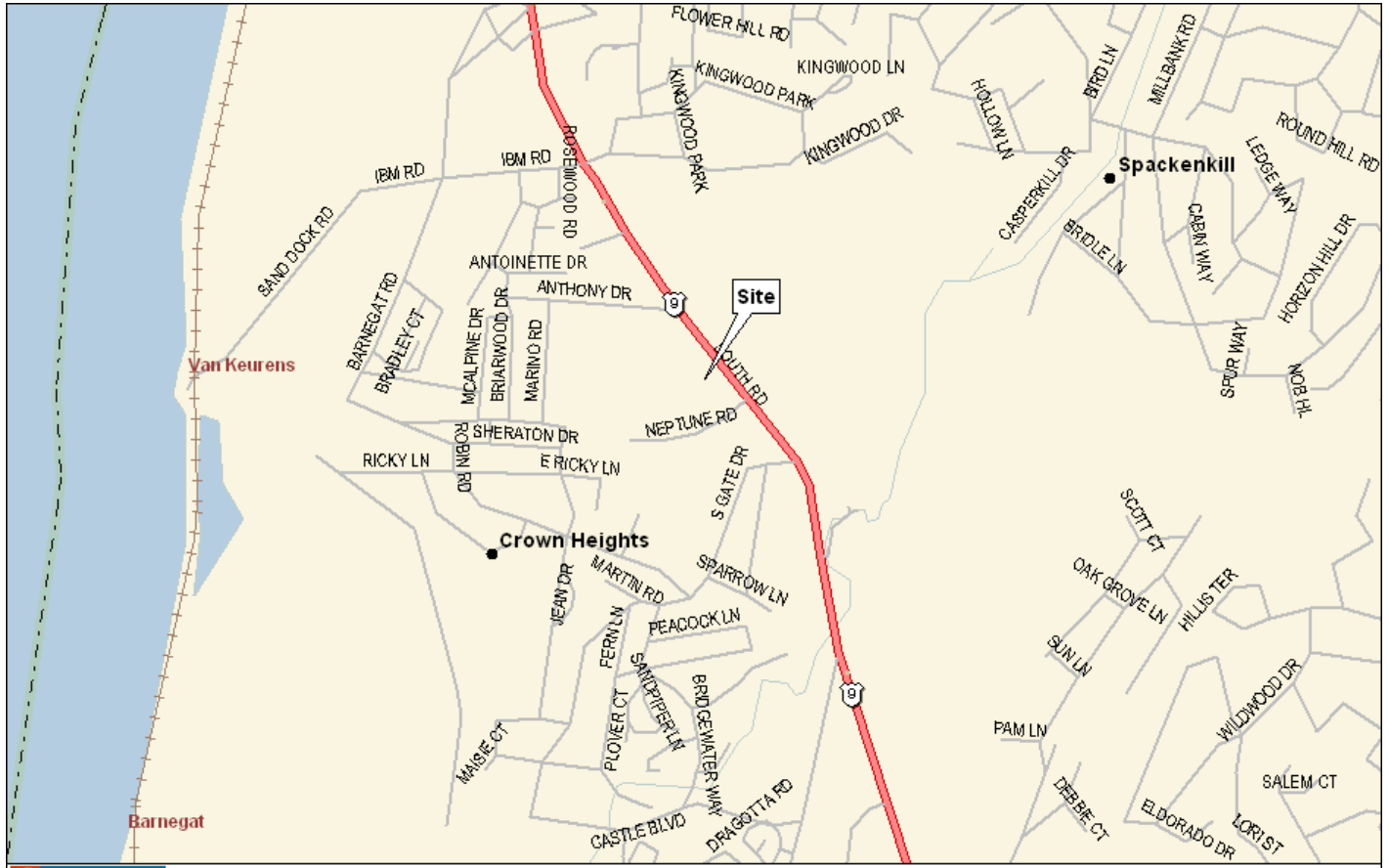
Emergency Agencies	Phone Numbers
EMERGENCY	911
Vassar Brothers Medical Center 45 Reade Place	(845) 454-8500
Poughkeepsie Police Department	(845) 451-4000 or 911
Arlington Fire Department	(845) 463-6033 or 911
Poughkeepsie Town Hall	(845) 485-3620
Poughkeepsie Water Department	(845) 462-6535

Figure 1: Directions to Hospital

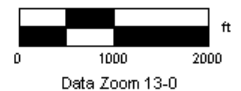
- 1: Start out going EAST on NEPTUNE DR toward SOUTH RD / US-9 S.
- 2: Turn LEFT onto SOUTH RD / US-9 N. Continue to follow US-9 N.
- 3: Take the COLUMBIA ST ramp toward RINALDI BLVD.
- 4: Turn RIGHT onto COLUMBIA ST.
- 5: Turn RIGHT onto YOUNG ST.
- 6: Turn RIGHT onto READE PL.

Figure 2: Map to Hospital





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 www.delorme.com



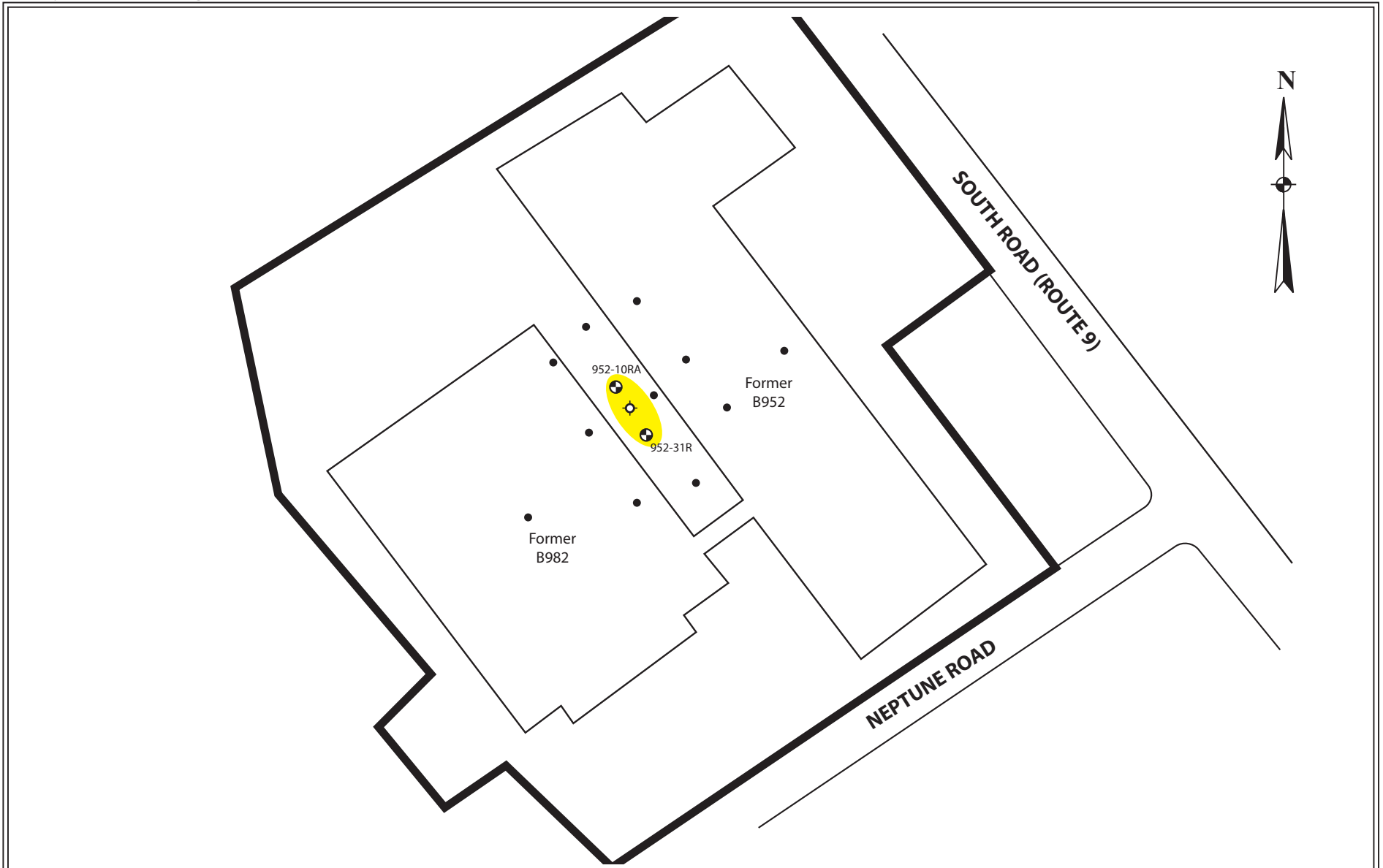
Site Location Map
 Former IBM Facility
 Neptune Road
 Town of Poughkeepsie
 Dutchess County, New York



ESI File: NP07096.20

Date: October 2007

Attachment



All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Proposed Fieldwork Map
 Former IBM Facility
 Neptune Road, Town of Poughkeepsie,
 Dutchess County, New York

- Legend:
- Site border
 - existing monitoring well location
 - existing extraction well location
 - proposed soil gas sample location
 - area of known groundwater contamination

ESI File: NP07096.20
October 2007
Scale: 1" = 125' (approximately)
Attachment

APPENDIX C

Community Air Monitoring Plan

**COMMUNITY AIR MONITORING PLAN
FOR SITE INVESTIGATIVE ACTIVITIES**

**Former IBM Facility
Neptune Road, Poughkeepsie, New York
NYSDEC Site Code: 314076
ESI File: NO07096.20**

Real-time air monitoring for volatile organic compounds (VOCs) at the perimeter of the exclusion zone or work area will be necessary. No activities that will generate significant dust will occur and no dust monitoring will therefore be required.

Periodic monitoring for VOCs will be required during all ground intrusive activities and during the collection of soil vapor samples. Periodic monitoring might reasonably consist of taking a reading upon arrival at a sample location, monitoring while exposing the subsurface, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include sampling near roadways or occupied on-site buildings.

VOC Monitoring, Response Levels, and Actions

VOCs must be periodically monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone). Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using a photoionization detector (PID) that has been properly calibrated at least daily.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background.
- If the persistent organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All PID readings must be recorded and be available for review.

APPENDIX D
Quality Assurance Plan

QUALITY ASSURANCE PROJECT PLAN

Prepared for the

**Former IBM Facility
Neptune Road
Poughkeepsie, New York**

NYSDEC Site Code: 314076

October 2007

ESI File: NP07096.20

**ECOSYSTEMS STRATEGIES, INC.
24 Davis Avenue
Poughkeepsie, New York 12603
(845) 452-1658**

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1.0 PROJECT MANAGEMENT

1.1 Project/Task Organization

The "Former IBM" Site located on Neptune Road, Town of Poughkeepsie, Dutchess County, New York (NYSDEC ID: 314076) will be the subject of a soil vapor investigation. Environmental investigative activities will be supervised by Ecosystems Strategies, Inc. (ESI), on behalf of the property owner, which will serve as the on-site coordinator (OSC). The following individuals are major participants in the project. Each participant has specific roles and responsibilities as described below.

Paul Ciminello	President, ESI
Scott Spitzer	Senior Project Manager, ESI
Emery Lawson	Project Manager, ESI

1.2 Principal Data Users

The principal users of the generated soil vapor quality data in this project are listed below.

Neptune Capital Investors, LLC (Site Owner)

1.3 Problem Definition/Background

The primary objective of the proposed investigation is to generate data to be used for site screening purposes, which will serve as the basis for the analysis of proposed additional investigative and/or remedial activities.

1.4 Project Task/Description

The objective of the project is to investigate the environmental integrity of on-site soil vapor. This objective will be met by collecting and analyzing soil vapor samples to document site conditions.

1.5 Quality Objectives and Criteria

The data collected in this project will be used for two purposes:

1. To identify and locate on-site contamination; and,
2. To collect baseline data for planning future investigative and/or remedial activities.

1.6 Documents and Records

Electronic and paper copies of all measurements will be retained by ESI. Paper copies will also be included in the final report to be generated at the conclusion of field investigations.

2.0 Data Generation and Acquisition

2.1 Sample Handling and Custody

Specific sample collection methodology is described in the Site Investigation Workplan. General protocols for sample handling and custody are presented below.

All samples will be handled by the OSC, collected into laboratory supplied Summa canisters, properly labeled, and immediately stored under secure conditions in a cool environment. Dedicated, disposable gloves will be used during the handling of sampling equipment. Containers will be labeled with the sample ID and (as required) the collection depth. For each sampling day, sampling personnel will complete a sampling custody worksheet indicating all pertinent information about the samples collected, handling methods, name of the collector, and chain of custody. Summa canisters will be promptly delivered to the appropriate laboratory under proper chain of custody.

2.2 Analytical Methods

Soil-vapor samples will be analyzed for VOCs (USEPA Method TO-15). Accuracy and precision will be determined by repeated analysis of laboratory standards, and matrix effects and recovery will be determined through use of spiked samples. With each sample run, standards, blanks, and spiked samples will be run.

2.3 Quality Control

2.3.1 Instrument/Equipment, Testing, Inspection, and Maintenance

Field measurements will be collected using a photoionization detector (PID). Equipment testing, inspection, and maintenance will be the responsibility of the OSC. All field instruments will be stored at ESI offices when not in use. Field equipment will be calibrated daily. Instrument malfunction is normally apparent during calibration; in the event of malfunction, equipment will be cleaned and tested.

2.3.2 Inspection/Acceptance of Supplies and Consumables

Supplies and consumables will consist of laboratory supplied Summa Canisters and disposable gloves. All supplies and consumables will be inspected by the OSC upon receipt and prior to field use.

2.3.3 Data Management

For the purpose of data management, the data can be divided into field and laboratory data. Field data (notes regarding supplies and equipment calibration, sampling and custody logs, and fieldwork observations) will be recorded at the time of occurrence on written logs. Laboratory data will be recorded and reported in both printed and digital formats.

3.0 Data Validation and Usability

3.1 Field Measurements

Data from field instruments (PID) will be assumed to be valid, and will be accepted as an indication of field conditions, if field instruments are determined to be functioning correctly through calibration and measurements of standards, and if there are no inconsistencies between written records and data recorded in the meters. If instruments malfunction prior to field measurement, they will be restored to proper function prior to use. If they malfunction immediately after field measurements are taken, the measurements will be retaken as soon as possible. In addition, all field data will be reviewed for consistency and plausibility.

3.2 Laboratory Data

All samples will be submitted to a NYSDOH ELAP certified laboratory, which maintains current CLP certifications for each required analysis. The laboratory will follow standard procedures regarding data generation, validation, and verification, and final reports will include detailed Quality Assurance/Quality Control (QA/QC) data. Analytical services protocol ASP Category B deliverables will be submitted for confirmatory and final delineation samples.

All laboratory data will be reviewed and verified by the OSC in order to determine that all data has been collected at the proper locations by the proper persons and that all field and laboratory logs are complete. A Data Usability Summary Report (DUSR) will be prepared by a third, independent party, which maintains NYSDOH ELAP CLP Certification.

The OSC will have final review authority for all data issues (no project specific data calculations are anticipated to be required). Following OSC review, all data will be conveyed to users via a final report.